

REMARKS

Summary Of The Office Action & Formalities

Status of Claims

Claims 1-13 are all the claims pending in the application. By this Amendment, Applicant is amending claims 1 and 2. No new matter is added.

Additional Fees

Submitted herewith is a Petition for Extension of Time with fee.

Preliminary Matters

Applicant thanks the Examiner for initialing the references listed on form PTO/SB/08 submitted with the Information Disclosure Statement filed on March 26, 2006.

Drawings¹

The Examiner objects to the drawings under 37 CFR § 1.83(a) because the drawings do not show a “T-shaped part.” Applicant is amending the drawings to add new Figure 3 depicting an example of the “T-shaped part” claimed in claims 9 and 10 and the flute shaped hole claimed in claim 10.

Specification

The Examiner objects to the specification because paragraph 24 and paragraph 26 identify reference character 8 as a “blow tube” and a “vibrating strip,” respectively. Applicant is amending paragraph 26 of the specification to address this objection. Applicant is also adding a

¹ The Examiner indicated in a phone conversation on September 5, 2008 that the objection to the drawings under 37 CFR § 1.84(p)(4) was in error. The Examiner’s objection is with respect to paragraphs 24 and 26 of the specification which identify reference numeral 8 as both a “blow tube” and a “vibrating strip.” Paragraph 26 of the specification has been amended to address this issue.

new paragraph after paragraph 22 and amending paragraph 29 so that the specification corresponds with the new FIG. 3.

Claim Objections

The Examiner objects to claim 2 because the phrase “drawn in” was not sufficiently described in the specification. Applicant is amending Paragraph 24 of the specification and claim 2 to address this objection.

Art Rejections

1. Claims 1-4, 6, 7, and 13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Gyorgy (U.S. Pat. No. 5,662,064 [hereinafter “Gyorgy”]) in view of Piltz (U.S. Pat. No. 4,913,306).

2. Claim 5 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Gyorgy modified by Piltz and further in view of Larkin et al. (U.S. Pat. No. 5,860,743 [hereinafter “Larkin”]).

3. Claims 8, 11 and 12 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Gyorgy modified by Piltz, further in view of LeBlanc et al. (U.S. Pat. No. 4,970,983 [hereinafter “LeBlanc”]).

4. Claims 9 and 10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Gyorgy modified by Piltz, further in view of Belli (U.S. Pat. No. 5,600,080 [hereinafter “Piltz”]).

Applicant respectfully traverses.

Claim Rejections - 35 U.S.C. § 103

1. Claims 1-4, 6, 7 and 13 Over Gyorgy in view of Piltz.

In rejecting claim 1, the grounds of rejection state:

Regarding claim 1, Gyorgy discloses a horn 10 shown in Fig. 1 to have a blow tube or pressure tube 14 where air is blown into a pressure chamber or clearance 21 (column 3 lines 20-21). This figure further shows an acoustic chamber formed by sound tube 11 coaxial with said pressure chamber 21, formed by tube 14 (column 3 lines 2-4). Gyorgy further discloses a strip or membrane 22, further shown in Fig. 1 to be coaxial with said acoustic chamber and fixed at its periphery to a free end of the partition of tube 14, enclosing said pressure chamber 21. This reference further discloses said strip 22 to be commonly made of metal in the prior art (column 1 lines 24-26), but describes the use of a strip 22 made out of plastic or polyethylene (column 3 lines 1516). Gyorgy fails to explicitly disclose that the vibrating metal strip is made of a plastic coated aluminum.

However Piltz teaches an end closure being a flexible strip or membrane being made of plastic coated aluminum (column 3 lines 40-43).

Given the teachings of Piltz, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the horn disclosed by Gyorgy with the vibrating metal strip to be made of plastic coated aluminum. It has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416. Doing so would provide a weather proof covering, where the sound can be adjusted through varying the thickness of the aluminum used.

Office Action at pages 3-4.

Applicant respectfully submits that it would not have been obvious to one of ordinary skill in the art to combine the teachings of Piltz with Gyorgy. The membrane in Gyorgy is a flexible membrane that functions by vibrating to produce sound when pressurized air passes between a pressure chamber and a sound chamber. (*See* Gyorgy, col. 2, ll. 24-53). In contrast, Piltz discloses that the “inner membrane [comprising] plastics coated aluminum foil” is a secondary seal for enclosing a packaging container. (*See* Piltz, col. 3, ll. 37-45). As Piltz describes in more detail: “there is disclosed an end closure [on the packaging container] which in

a closed condition comprises at least two different material layers arranged for being penetrated in two steps, such that the first outer layer is penetrated by a so called easy opening device, whereafter the [plastics coated aluminum foil] is removed in any suitable manner, for instance by a knife or a pair of scissors.” (Piltz, col. 1, ll. 12-18). As a last note, the container device in Piltz is directed at containing liquids because Piltz discusses “water vapor high barrier[s]” and “splash free . . . pouring edge[s].” (See Piltz, col. 1, ll. 23, 29-31). Thus, the plastics coated aluminum foil in Piltz functions as a removable seal to contain liquid in a container, which is totally unrelated to the application of a vibrating membrane in Gyorgy. As a result, it would not have been obvious to one skilled in the art that the membrane disclosed in Piltz would be suitable for use as a membrane for the device in Gyorgy.

With regard to the Examiner’s argument that it would have been obvious to coat aluminum with plastic to provide weather-proofing for a vibrating membrane, there is nothing in Gyorgy, Piltz or the current application to indicate that there was a problem with corrosion of vibrating membranes. In fact, aluminum is generally known to be a corrosion resistant material so one skilled in the art would not look to weather proof an aluminum membrane with plastic. Furthermore, Gyorgy teaches away from the use of metal membranes because they were “somewhat massive,” not because of problems with corrosion. (Gyorgy, col. 1, ll. 23-24). Gyorgy disclosed that membranes made only of “polyethylene, polypropylene, cellophane, paper or rubber” were preferable over metal membranes because “relatively small pressures . . . can be used to generate very high sound amplitudes.” (Gyorgy, col. 2, ll. 3-17). As such, it would not have been obvious to one skilled in the art to use a plastic coated aluminum membrane for a vibrating membrane in a horn.

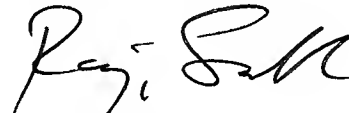
Because the plastics coated aluminum foil disclosed in Piltz neither functions the same as nor addresses a known problem of the horn in Gyorgy, Applicant respectfully submits that claim 1 is allowable. Please note that Applicant has amended claim 1 only to provide a proper antecedent basis. Applicant also submits that claims 2-13 are allowable at least by virtue of their dependency on claim 1.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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